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In the Claims:

Please amend the claims by replacing all prior versions of the claims pursuant to 37 C.F.R. §1.121 as modified by 68 Fed. Reg. 38611 (June 30, 2003) as follows:

- 1. A method of treating a disorder of a subject's heart involving loss of cardiomyocytes which comprises administering to the subject a composition comprising an amount of a human stromal-derived factor-1 and an amount of a human granulocyte-colony stimulating factor, the composition being administered in an amount effective to cause proliferation of cardiomyocytes within the subject's heart so as to thereby treat the disorder.
- 2. The method of claim 1, wherein the human stromal-derived factor-1 is human stromal-derived factor- 1α .
- 3. The method of claim 1, wherein the human stromal-derived factor-1 is human stromal-derived factor-1 β .
- 4. The method of claim 1, wherein the human stromal-derived factor-1 is human stromal-derived factor- 1γ .
- 5. The method of claim 1, wherein the disorder comprises myocardial infarction, congestive heart failure, chronic

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ischemia, or ischemic disease.

- 6. The method of claim 1, further comprising administering to the subject an amount of one or more of a human granulocyte macrophage-colony stimulating factor, a human interleukin-8, a human vascular endothelial growth factor, a human fibroblast growth factor, a human Gro family chemokine, human endothelial progenitor cells, or a pro-angiogenic agent, the amount, or if appropriate amounts, thereof being effective to cause proliferation of cardiomyocytes within the subject's heart so as to thereby treat the disorder.
- 7. The method of claim 1, wherein the composition is administered intramyocardially.
- 8. The method of claim 1, wherein the composition is administered intracoronarily.
- 9. The method of claim 1, wherein the composition is administered via a stent, a scaffold, or a slow-release formulation.
- 10. A method of treating a subject suffering from a disorder of a tissue involving loss and/or apoptosis of cells of the tissue which comprises administering to the subject a composition comprising an amount of an agent which induces phosphorylation and/or activation of protein kinase B, the composition being

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administered in an amount effective to cause proliferation of the cells and/or inhibit apoptosis of the cells of the tissue within the subject so as to thereby treat the disorder.

- 11. (Currently Canceled)
- 12. (Currently Canceled)
- 13. (Currently Canceled)
- 14. The method of claim 10, wherein the tissue is heart tissue and the cells are cardiomyocytes.
- 15. (Currently Canceled)
- 16. The method of claim 10, wherein the tissue is heart tissue and the cells are progenitors of cardiomyocytes or stem cells that differentiate to cardiomyocytes.
- 17. The method of claim 10, wherein the tissue is heart muscle, striated muscle, liver, kidney, neuronal or gastrointestinal tissue.
- 18. The method of claim 10, wherein the agent is insulin, endothelin-1, urocrotin, cardiotropin-1, erythropoietin,

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leukemia inhibitory factor-1, tumor necrosis factor-alpha.

- 19. The method of claim 10, further comprising administering an amount of one or more of a human granulocyte-colony stimulating factor, a human stromal-derived factor-1, a human granulocyte macrophage-colony stimulating factor, a human interleukin-8, a human vascular endothelial growth factor, a human fibroblast growth factor, a human Gro family chemokine, human endothelial progenitor cells, or a pro-angiogenic agent, the amount, or if appropriate amounts, effective to cause proliferation of the cells and/or inhibit apoptosis of the cells of the tissue of the subject so as to thereby treat the disorder.
- 20. A composition comprising a human stromal-derived factor-1 and a human granulocyte-colony stimulating factor.
- 21. (Currently Canceled)
- 22. (Currently Canceled)
- 23. (Currently Canceled)
- 24. A method of treating a subject suffering from a disorder of a tissue involving loss and/or apoptosis of cells of the tissue which comprises administering to the subject a composition

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comprising an amount of an agent which induces phosphorylation and/or activation of an extracellular signal-regulated protein kinase, the composition being administered in an amount effective to inhibit apoptosis and/or cause proliferation of the cells of the tissue within the subject so as to thereby treat the disorder.

- 25. (Currently Canceled)
- 26. (Currently Canceled)
- 27. (Currently Canceled)
- 28. (Currently Canceled)
- 29. (Currently Canceled)
- 30. (Currently Canceled)
- 31. (Currently Canceled)
- 32. (Currently Canceled)
- 33. (Currently Canceled)

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- 34. (Currently Canceled)
- 35. A method of treating a subject suffering from a disorder of a tissue involving loss and/or apoptosis of cells of the tissue which comprises administering to the subject a composition comprising an amount of an agent which induces activation of CXCR4, the composition being administered in an amount effective to cause proliferation of the cells and/or inhibit apoptosis of the cells of the tissue within the subject so as to thereby treat the disorder.
- 36. The method of claim 35, wherein the tissue is heart tissue and the cells are cardiomyocytes.
- 37. The method of claim 36, wherein the agent is administered intramyocardially or intracoronarily via a stent, a scaffold, or a slow-release formulation.
- 38. (Currently Canceled).
- 39. (Currently Canceled).
- 40. (Currently Canceled).

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- 41. (Currently Canceled).
- 42. (Currently Canceled).